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November 9, 2000

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FEDERAL COMPRESSION TONE COMPRESSION

RECEIVED

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OFFICE OF THE SECRETARY

WRITER'S CONTACT INFORMATION (202) 828-5540

Magalie R. Salas, Secretary Office of the Secretary Federal Communications Commission Washington, D.C. 20554

> Attention: Patrick Forster, Senior Engineer (3-A104)

> > **Policy Division**

Wireless Telecommunications Bureau

Re: GW Wireless, Inc.

Implementation Plans of Wireless E911 Phase II Automatic

**Location Identification** 

Notice Pertaining to CC Docket No. 94-102

Dear Ms. Salas:

On behalf of GW Wireless, Inc., we are submitting herewith its Report on Implementation of Wireless E911 Phase II Automatic Location Identification.

Please direct any questions or correspondence regarding this filing to our office.

Very truly yours,

- a Vrankey øhn A. Prendergast

Richard D. Rubino

Attachment

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## GW WIRELESS, INC. 410 Crown Street P.O. Box 411 Wall, SD 57790-0411

Magalie R. Salas, Secretary
Office of the Secretary
Federal Communications Commission
445 12<sup>th</sup> Street, SW
Washington, D.C. 20554

Attention: Patrick Forster, Senior Engineer (3-A104)

**Policy Division** 

Wireless Telecommunications Bureau

Re: Implementation Plans of Wireless 911 Phase II Automatic

**Location Identification** 

Notice Pertaining to CC Docket No. 94-102

#### E911 PHASE II STATUS REPORT

Dear Ms. Salas:

In accordance with the <u>Third Report and Order</u> in Docket No. 94-102 and the Commission's related Public Notice, Mimeo No. DA00-2099 (released September 14, 2000), we hereby submit our report on the status of implementation plans for Wireless 911 Phase II Automatic Location Information, as follows:

## **Background/Contact Information**

1) Carrier Identifying Information: GW Wireless, Inc.

TRS Number: Not Yet Assigned – Network not constructed or providing service to the public.

2) Contact Information: John Prendergast, Esq.

Blooston, Mordkofsky, Jackson & Dickens

2120 L Street, N.W., Suite 300 Washington, D.C. 20037

Tel. (202) 659-0830 Fax (202) 828-5568

## E911 Phase II Location Technology Information

Response to Item Nos. 1 - 7.

Lordon Type of Technology: GW Wireless, Inc. holds licenses for Broadband Personal Communications Service stations WPOJ758 (Rapid City SD BTA 369, C-Block) and WPOJ757 (Mitchell SD BTA 301, E-Block). The five-year construction deadline for these licenses does not expire until June 30, 2004. We have tentatively decided to provide fixed voice and data service over our PCS system using Airspan technology; however, we are not yet in a position to make a final determination concerning the technology that will be used.

In particular, GW Wireless, Inc. is awaiting the Commission's decision concerning the June 30, 2000 request of certain rural telephone carriers for clarification of the policies governing the operation of broadband PCS and LMDS facilities pursuant to a spectrum lease arrangement. See Public Notice, DA00-1953, released August 24, 2000. Specifically, GW's parent company Golden West Telecommunications Cooperative, Inc. ("Golden West"), along with Venture Wireless, Inc. ("Venture") and Long Lines Ltd. ("Long Lines") (hereinafter the "Rural Carriers") have requested clarification of the Commission's "de facto" control policy, to determine if these rural carriers can proceed with an innovative spectrum lease arrangement designed to bring broadband access and other services to rural and less populated areas, using fixed technology manufactured by Airspan. If the Commission clarifies its rules in a way that clears the way for such arrangements (thereby allowing small carriers to combine their resources without surrendering their spectrum rights), GW Wireless, Inc. intends to participate in this venture, and will therefore contribute the use of its PCS spectrum for operation of Airspan technology. If we deploy the fixed Airspan technology, we have been advised that this technology will provide a PSAP with the precise address of the subscriber placing a 911 call, in the same fashion as wireline 911 service. Because subscribers using a fixed Airspan radio are not moving, the identification of approximate geographic coordinates of the caller is less accurate than the subscriber address.

In the absence of a favorable ruling, GW Wireless, Inc. will likely have to evaluate various other technologies before it can decide on a PCS signaling format and equipment vendor, thereby delaying its ability to decide on an E911 compliance approach.

GW Wireless, Inc. is a subsidiary of a rural telephone cooperative. If potential regulatory uncertainties are resolved, participating in the fixed wireless venture described in the Clarification Request appears to be the best strategy for GW. However, because it is a small business, and because of the higher per pop cost of a rural buildout (and reduced expectation of revenues due to lower population density), GW cannot afford to devote substantial resources to moving forward with deployment of a technology pursuant to an arrangement that has not yet been approved by the FCC. If the Airspan arrangement is

not approved, and GW must ultimately implement a different PCS technology, any resources spent on the Airspan effort will have been wasted.

In the event that we must turn to another PCS technology, we have been monitoring the progress of the various Phase II E911 solutions under development, and have obtained, through our consultants, basic information concerning network-based vendors such as Allen Telecom/Grayson Wireless Division, Cell-Loc, Inc./Times Three, Inc., TruePosition, Inc., U.S. Wireless Corp., and XYPOINT Corporation; handset-based vendors such as SnapTrack, Inc. and others such as Motorola, Inc., Nokia and Ericsson. We are also aware of a hybrid approach under development by FocuSystems, Inc. Based on this information, it appears that all of the above products are still under development, and we expect that all will progress significantly over the next 6 to 12 months.

We are concerned about the high cost of a network solution, as well as the problems associated with the use of triangulation and similar techniques in a rural setting, where towers are widely spaced and may be separated by uneven terrain. We are likewise concerned with the fact that handset solutions generally rely on GPS technology, and thus are limited by the ability of the handset to have a clear line of sight to the GPS satellite (which may limit the effectiveness of E911 calls made from indoors, heavily forested areas, etc.). These factors further support the case for fixed Airspan service, but we expect that these issues will eventually be resolved, if we must go to a mobile application in the future. Once such a final determination is made, we will file a supplemental report which will indicate the type of technology, as well as the equipment vendor, timetable for deployment, and program to ensure a successful implementation. Such report will be filed within 30 days of our implementation decision, in accordance with Rule Section 20.18(i).

- 2. Testing and Verification Method: Testing to verify the Phase II capability will be conducted in accordance with the Empirical Testing Method per OET Bulletin No. 71 and the equipment manufacturer's requirements.
- 3. Implementation Details and Schedule: In order to ensure that we timely achieve compliance with the Commission's E911 requirements, once we have received a ruling from the Commission and are able to finalize our overall PCS technology, we will promptly takes steps to implement service and 911 capability. If we are able to use the Airspan technology, we will provide the PSAP with the street address of the subscriber location from which the 911 call is placed, in the same fashion as a local exchange carrier. In essence, the Airspan system associates the location information from our customer database with the incoming call, and passes this information on to the PSAP.

This information does not include geographic coordinates as normally contemplated for E911 Phase II, but instead provides a far more accurate and useful location description, namely, the street address. Every customer will be required to provide this information as a condition of service. Since the customer equipment is fixed, the provision of approximate geographic coordinates within 100 to 300 meters is unnecessary and counterproductive. To the extent deemed necessary, we hereby request a waiver to provide street address rather than coordinate information. The public safety requirements are better served by providing street address for fixed users; and the Airspan operation should be treated the same as other fixed technologies (including wireline, LMDS and 39 GHz), which do not have to provide coordinate information.

In the event that we receive an unfavorable ruling concerning the proposed spectrum lease arrangement and are forced to consider other PCS technologies, we will promptly review the status, pricing and availability of all Phase II solutions at that time, and evaluate their effectiveness and feasibility based on the signaling format we have chosen. If we affiliate with other carriers based on our choice of format, the Phase II solution chosen by the affiliated carriers will be factored into our evaluation. We will also consult with industry sources, especially other rural telephone companies engaging in the provision of PCS, to determine which solution works best for non-urban areas. We will then decide on a vendor and proceed to implement the chosen solution in accordance with the Commission's Rules. It is contemplated that we would use customer mailings, bill inserts, store promotions and similar efforts to make our customers and potential customers aware of the availability and benefits of Phase II capability. Depending on the timing of our activation and related PSAP requests, our system may be Phase II compliant from the initiation of service, in which case it is expected that virtually all customers placed on the system will be Phase II compliant.

- 4. **PSAP Interface**: The provision of address information to the PSAP will be accomplished in much the same way that a wireline carrier provides location information when forwarding a 911 call to the PSAP. VMN will work with Airspan to ensure that the PSAP obtains any software necessary to receive and utilize this information. It is anticipated that this arrangement will be made prior to initiation of service.
- 5. Upgrading Existing Handsets: Not applicable. The Airspan technology will provide exact street address information to the PSAP as described above, and all subscriber units sold upon initiation of service will be capable of relaying this street address information.
- 6. Location of Non-Compatible Handsets: Not applicable.
- 7. Other Information: Because we have not implemented service, we have not received any PSAP Phase I or Phase II requests, with respect to our PCS system, to date.

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Upon the commencement of service to the public, we stand ready to implement appropriate location technology as described above. We will remain in contact with our local PSAP, and as necessary will update this report to keep the Commission apprised of our progress.

Respectfully submitted,

GW WIRELESS, INC.

By George Strandell, Officer

Dated: November 8, 2000